Calculating Specific Gravity and the Equivalent Weight of a Liquid – Practice Problem Answers

1. The equivalent weight of a liquid is 15.6 pounds per gallon. What is its specific gravity?

Specific Gravity = equivalent weight of particular liquid
Equivalent weight of water

Specific Gravity = 15.6 lbs. per gallon
8.34 lbs. per gallon

Specific Gravity = 1.87

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2. The equivalent weight of a liquid is 6.5 pounds per gallon. What is its specific gravity?

Specific Gravity = equivalent weight of particular liquid
Equivalent weight of water

Specific Gravity = 6.5 lbs. per gallon
8.34 lbs. per gallon

Specific Gravity = 0.78

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3. You are adding a polymer to the water to help with flocculation. The specific gravity of the polymer is 1.65. What would the liquid weigh per gallon?

Equivalent weight of a particular liquid = Specific Gravity x Equivalent Weight of Water

Equivalent weight of the polymer = 1.65 x 8.34

Equivalent weight of the polymer = 13.76 lbs. per gallon

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4. You are adding a polymer to the water to help with flocculation. The specific gravity of polymer is 4.56. What would the liquid weigh per gallon?

Equivalent weight of a particular liquid = Specific Gravity x Equivalent Weight of Water

Equivalent weight of the polymer = 4.56 x 8.34

Equivalent weight of the polymer = 38.03 lbs. per gallon